

ABSTRACT

A power generation system is described for supplying electrical power to a load from at least one of a generator and a battery. The power generation system includes a power bus coupled to the generator and a bi-directional conversion unit coupled between the power bus and the battery. The bi-directional conversion unit is capable of transitioning between a first direction wherein electrical power flows from the power bus to the battery and a second direction wherein electrical power flows from the battery to the power bus.